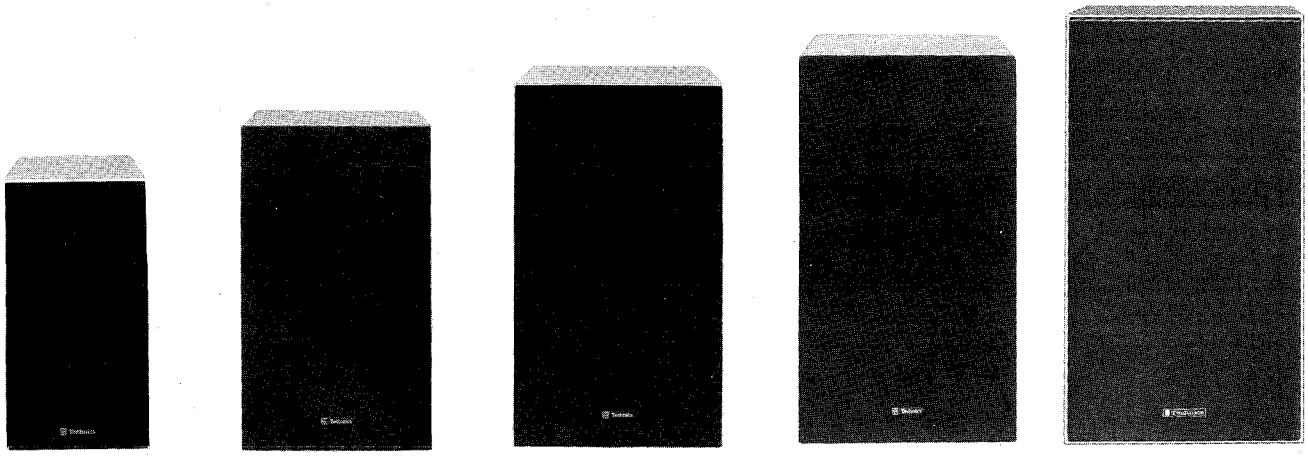
Service Manual

National Technics STEREO National Technics



SB-40 SB-101 SB-201 SB-301 SB-501

HiFi Speaker System

MODEL **SB-40,101,201,301/301A,501**

SPECIFICATIONS

ITEM \ MODEL	SB-40	SB-101	SB-201	SB-301/301A	SB-501
System	1-way 1-speaker	2-way 2-speakers	2-way 2-speakers	2-way 2-speakers	3-way 3-speakers
Speaker					
Woofer	12 cm (5") High Compliance	20 cm (8") Linear Core type	20 cm (8") Linear Core type	25 cm(10") Linear Core type	30 cm (12") Linear Core type
Midrange	———	———	———	———	15 cm (6") Dome Midrange type
Tweeter	———	5 cm (2") Cone type	10 cm (4") Dome Tweeter	13 cm (5") Dome Tweeter	10 cm (4") Dome Tweeter
Impedance	6 Ω	8Ω	8Ω	8Ω	8Ω
Maximum Input	24 WATT	36 WATT	40 WATT	50 WATT	60 WATT
Cross Over Frequency	———	4 kHz	2 kHz	2.5 kHz	600 Hz, 4 kHz
Sound Pressure Level	89 dB/WATT	92 dB/WATT	92 dB/WATT	92 dB/WATT	92 dB/WATT
Frequency Response	40 Hz ~ 20 kHz	40 Hz ~ 20 kHz	35 Hz ~ 30 kHz	35 Hz ~ 20 kHz	20 Hz ~ 30 kHz
Resonance Frequency	80 Hz	64 Hz	55 Hz	55 Hz	45 Hz
Dimensions (W x H x D)	164mmx297mmx 210mm (6-1/2"x11-2/3"x 8-1/4")	280mmx470mmx 234mm (11"x18-1/2"x 9-1/5")	310mmx523mmx 260mm 12-1/5"x20-7/10"x 10-1/4")	330mmx570mmx 293mm 13"x22-1/2"x 11-1/2")	380mmx660mmx 323mm 15"x26"x 12-3/4")
Weight	4.7 kg (10.4 lbs)	8.3 kg (18.3 lbs)	13.5 kg (30 lbs)	15 kg (33 lbs)	23.2 kg (51 lbs)

MATSUSHITA ELECTRIC
MATSUSHITA ELECTRIC TRADING CO., LTD.
P. O. Box 288, Central Osaka, Japan

ORDER NO. SD-392

LOCATION OF PARTS

MODEL SB-40

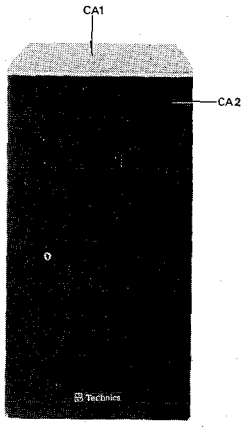


Fig. 1

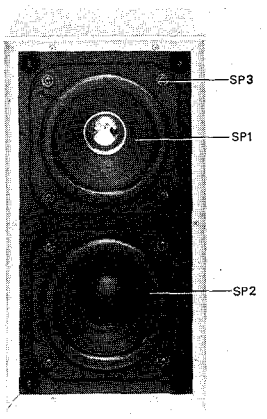


Fig. 2

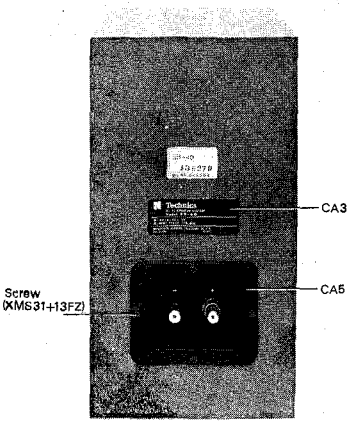


Fig. 3

MODEL SB-101

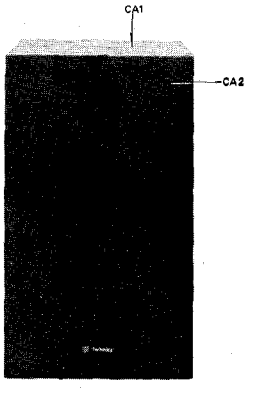


Fig. 4

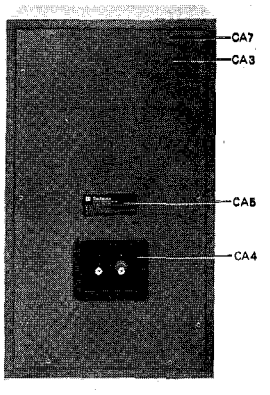


Fig. 5

MODEL SB-201

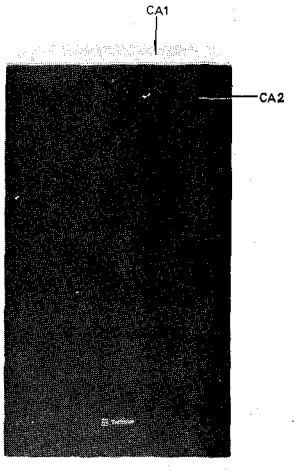
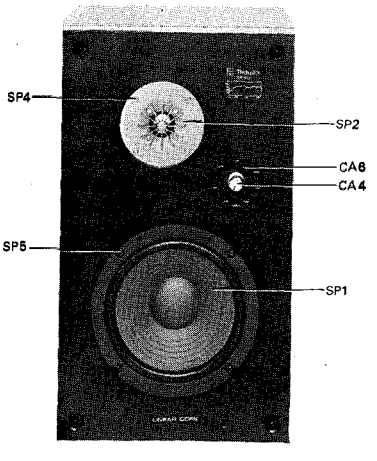


Fig. 6



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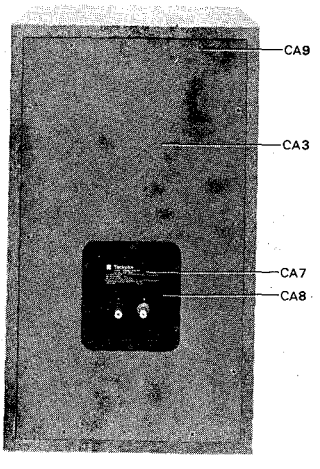


Fig. 8

MODEL SB-301

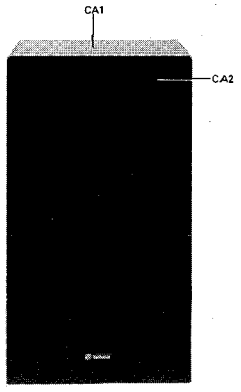


Fig. 9

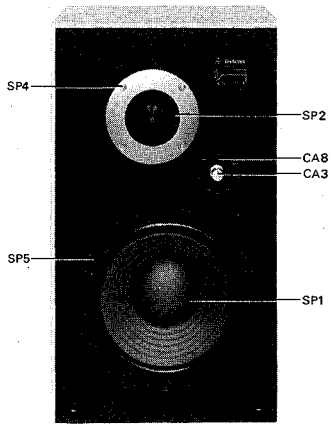


Fig. 10

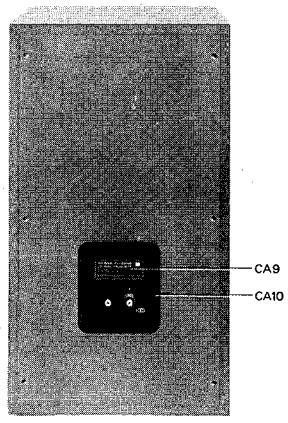
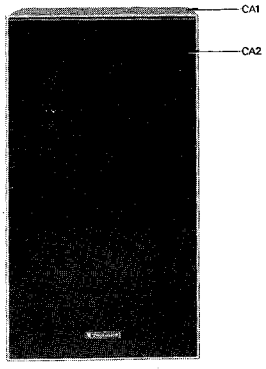


Fig. 11

MODEL SB-501



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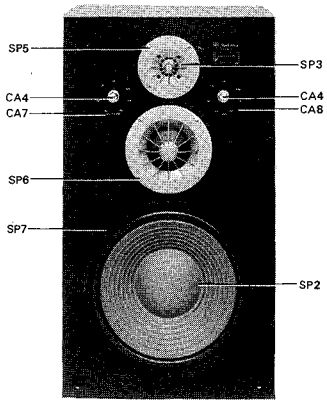


Fig. 13

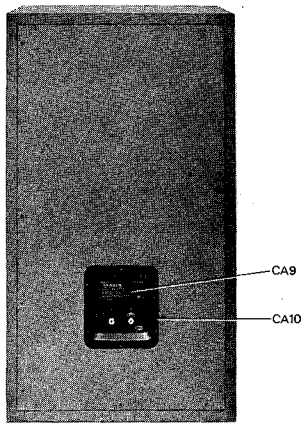
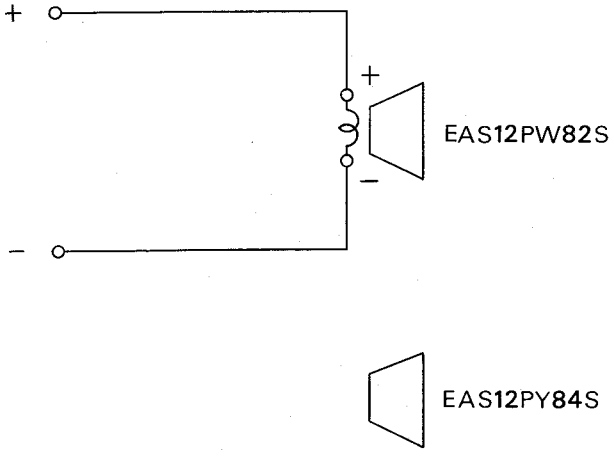


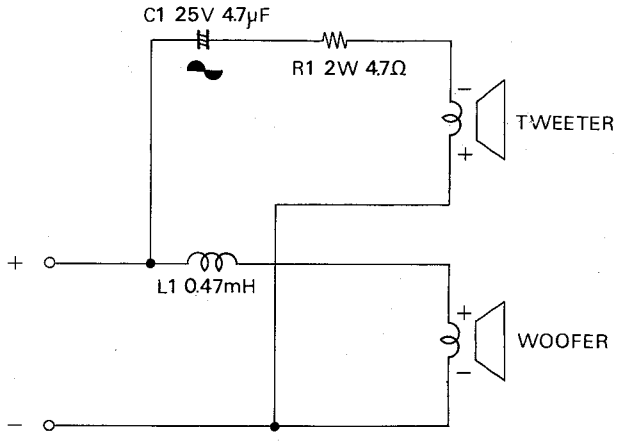
Fig. 14

SCHEMATIC DIAGRAM

MODEL SB-40

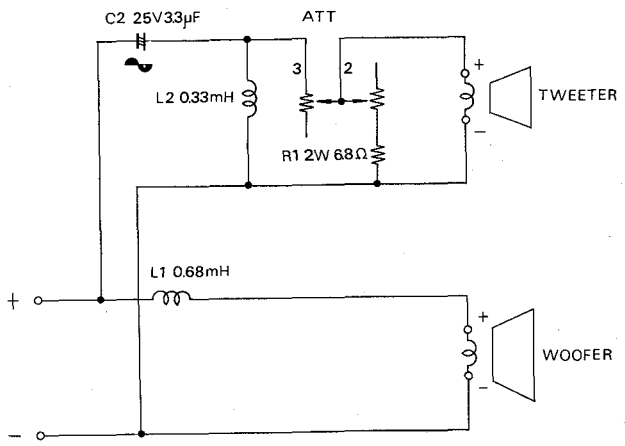


MODEL SB-101

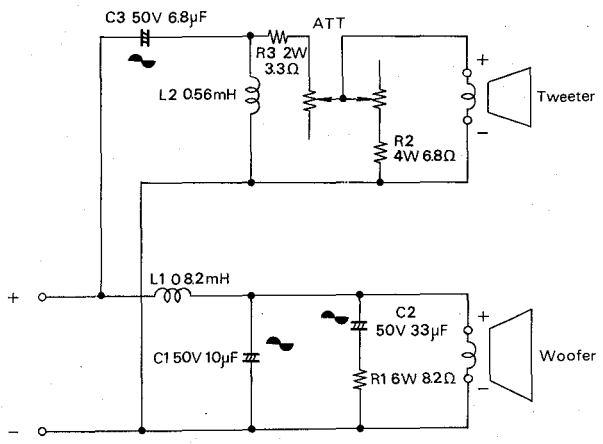


SCHEMATIC DIAGRAM

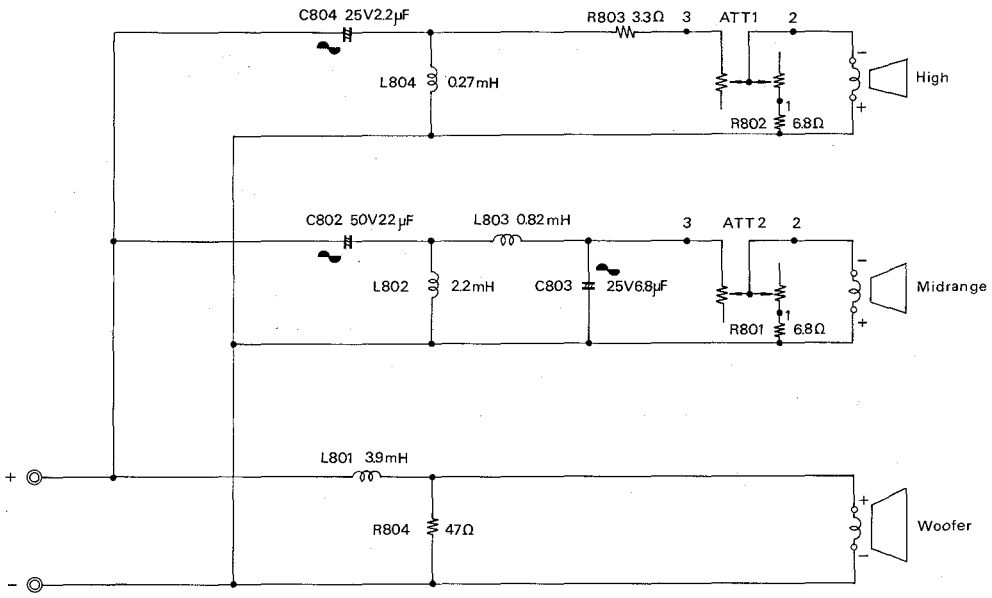
MODEL SB-201



MODEL SB-301

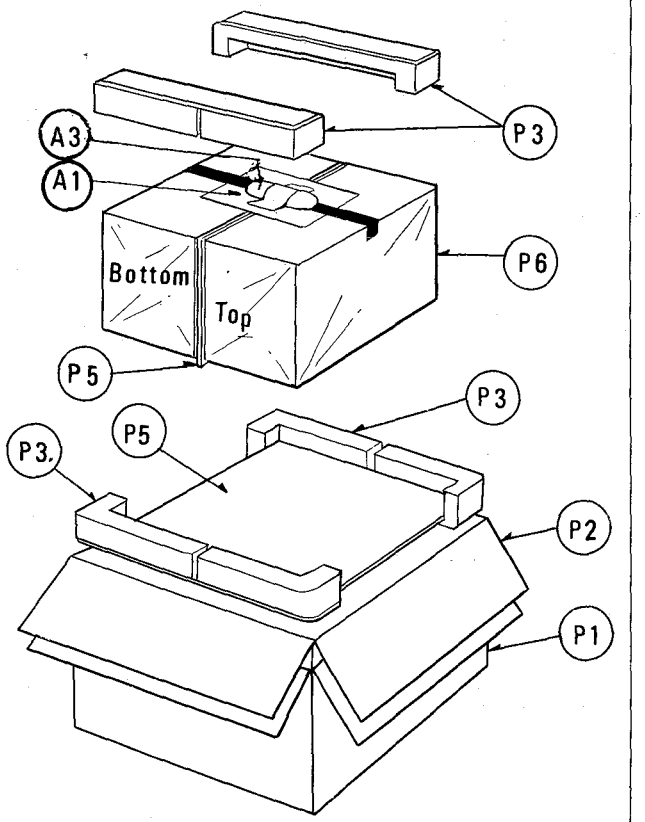


MODEL SB-501

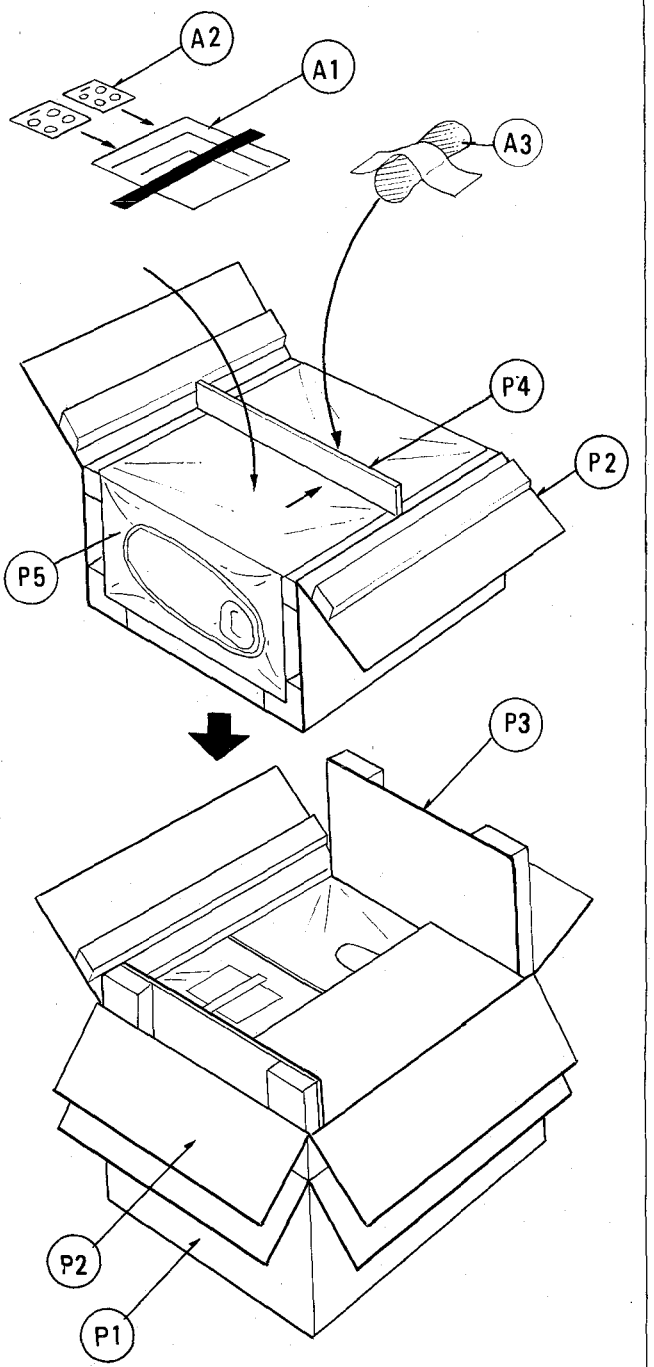


COMPONENT PACKING PROCEDURE

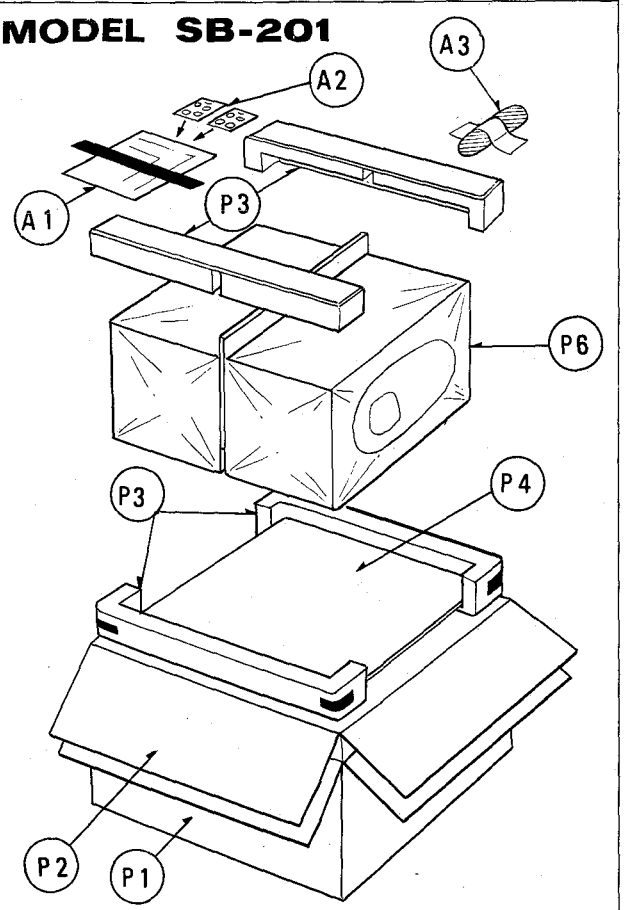
MODEL SB-40



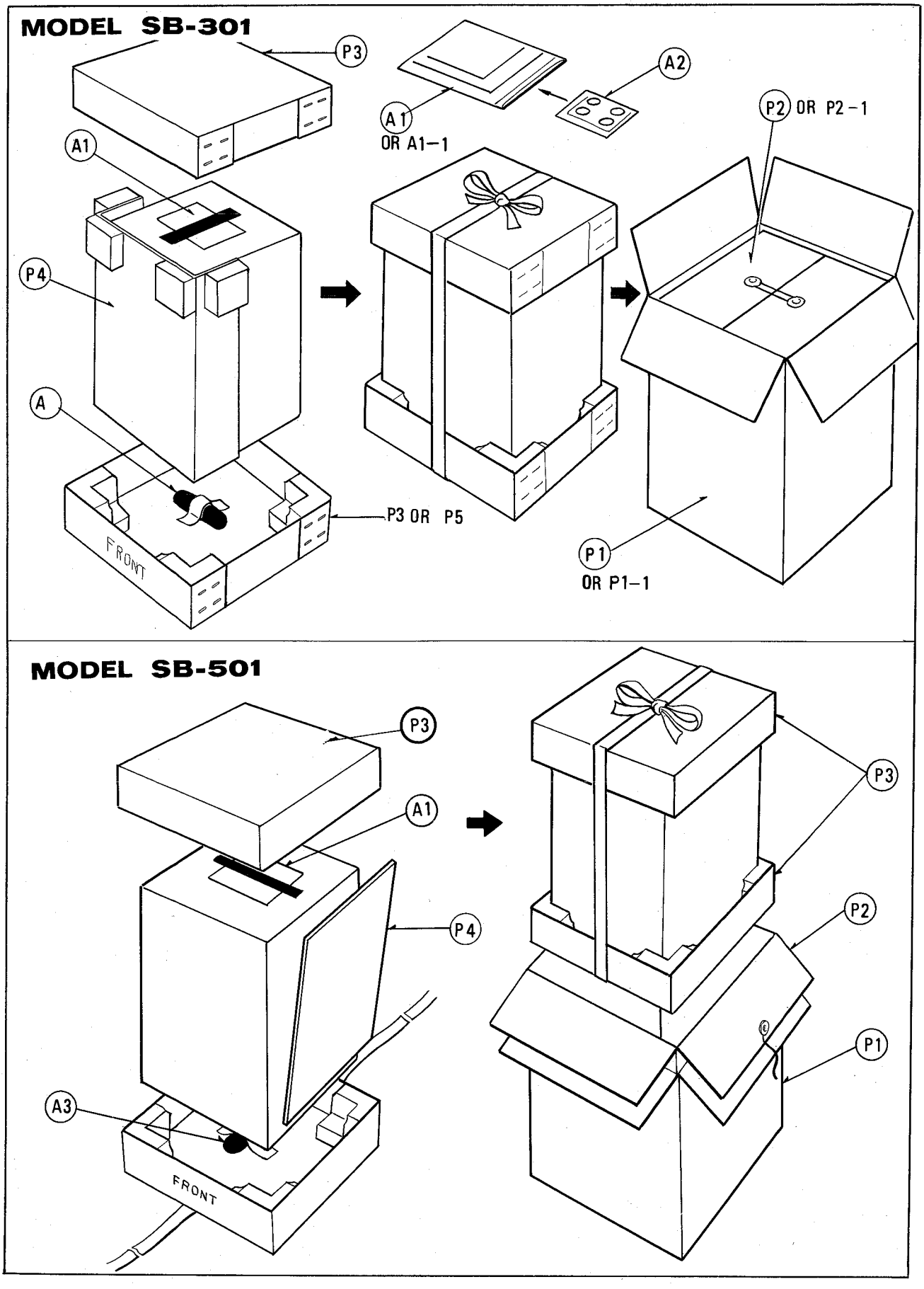
MODEL SB-101



MODEL SB-201



COMPONENT PACKING PROCEDURE



■ REPLACEMENT PARTS LIST

NOTE:

1. Part numbers indicated on most mechanical parts Please use this Part number for parts orders
2. Ⓝ indicates the New Parts

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
MODEL SB-40				
SP1	EAS12PW82S	Speaker, Full Range	1	Ⓝ
SP2	EAS12PY84S	Speaker, Drone Cone	1	Ⓝ
SP3	XSN4+30FZS	Screw, Speaker	8	
	XWA4BFZ	Spring Washer, Speaker	8	
	XWA4FZ	Flat Washer, Speaker	8	
CA1	SKA6691	Cabinet (Brown) w/out Grill	1	Ⓝ
CA2	SYB345	Grill Net (Black)	1	Ⓝ
CA1-1	SKA6711	Cabinet (White) w/out Grill	1	Ⓝ
CA2-1	SYB347	Grill Net (Silver)	1	Ⓝ
CA3	SGT9111	Specification Plate	1	Ⓝ
CA4	SHS509	Absorber	2	
CA5	SWT117	Rear Terminal Plate	1	Ⓝ
COMPONENT PACKING MATERIALS				
P1	SPG461	Outside Packing Case	1	Ⓝ
P2	SPN4327	Inside Packing Case	1	Ⓝ
P3	SPN4329	Corner Pad	4	Ⓝ
P4	SPN4331	Bottom Pad	1	Ⓝ
P5	SPN4333	Partition	1	Ⓝ
P6	SPP199	Protection Bag	1	
ACCESSORIES				
A1	SQF755	Printed Matter	1	Ⓝ
A2	SPB299-1	Felt, Speaker	1	
A3	SJP2207	Speaker Cord	2	
MODEL SB-101				
SP1	EAS20PL63SA	Speaker, Woofer 8Ω	1	Ⓝ
SP2	EAS5PH18SF	Speaker, Tweeter 8Ω	1	
C1	ECTB25Y4R7	4.7μF, WV-25V Electrolytic	1	
R1	ERX2ANK4R7	4.7Ω, 2W, Metalic Film	1	
CA1	SKA6611	Cabinet	1	
CA2	SYB337	Grill Ass'y (w/Board)	1	
CA3	SKZ477	Rear Board	1	
CA4	SWT117	Rear Terminal Ass'y	1	
CA5	SGT9130	Specification Plate	1	Ⓝ
CA6	SHS3025	Absorber	1	
CA7	XMC31+25FVC	Screw, Rear Board	10	
COMPONENT PACKING MATERIALS				
P1	SPG463	Outside Packing Case	1	Ⓝ
P2	SPN4335	Inside Packing Case	1	Ⓝ
P3	SPN4337	Corner Pad	4	Ⓝ
P4	SPN4339	Bottom Pad	1	Ⓝ
P5	SPN4341	Partition	1	
P6	SPP319	Protection Bag	1	
ACCESSORIES				
A1	SQF757	Printed Matter	1	Ⓝ
A2	SPB299-5	Felt, Speaker	1	
A3	SJP2207	Speaker Cord	2	
MODEL SB-201				
SP1	EAS20PL63S	Speaker, Woofer 8Ω	1	
SP2	EAS10KH06SA	Speaker, Tweeter 8Ω	1	
SP3	SWT111-1	Network	1	
SP4	XSN4+30FNS	Screw, Tweeter Speaker	4	
SP5	XSN4+30FZS	Screw, Woofer Speaker	4	
CA1	SKA6631	Speaker Cabinet	1	Ⓝ
CA2	SYB339	Grill Ass'y	1	Ⓝ
CA3	SKZ369	Rear Board	1	
CA4	SBN419-1	Knob	1	
CA5	SHS3003	Absorber	1	
CA6	SYE281	Attenator Panel Ass'y	1	
CA7	SGB405	Specification Plate	1	Ⓝ
CA8	SWT109-3	Rear Terminal Plate	1	
CA9	XMS35+32FVC	Screw, Rear Board	10	
COMPONENT PACKING MATERIALS				
P1	SPG465	Outside Packing Case	1	Ⓝ
P2	SPN4345	Inside Pad	1	Ⓝ
P3	SPN4347	Side Pad	2	Ⓝ
P4	SPN4349	Partition	1	Ⓝ
P5	SPP321	Protection Bag	1	

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
MODEL SB-301/301A				
SP1	EAS25PL41S	Speaker, Woofer 8Ω	1	
SP2	EAS13KH02S	Speaker, Tweeter 8Ω	1	
SP3	SWT113-1	Network (for SB-301)	1	
SP3-1	SWT113-2	Network (for SB-301A)	1	Ⓝ
SP4	XSN4+30FN	Screw, Tweeter Speaker	4	
SP5	XSN4+30FZS	Screw, Woofer Speaker	6	
CA1	SKA6651	Cabinet	1	
CA2	SYB341	Grill Ass'y	1	
CA1-1	SKA6730	Cabinet Ass'y (for SB-301A)	1	Ⓝ
CA3	SBN419-1	Knob	1	
CA4	SHS3025	Absorber	1	
CA5	SHS551	Absorber	1	
CA6	SGM15	Metal Net (for SB-301A)	1	Ⓝ
CA7	SHG1125	Bracket, Metal Net (for SB-301A)	1	Ⓝ
CA8	SYE281	Attenuator Plate	1	
CA9	SGB407	Specification Plate (for SB-301)	1	
CA9-1	SGB417	Specification Plate (for SB-301A)	1	
CA10	SWT109-4	Rear Terminal Plate (for SB-301)	1	
CA10-1	SWT109-6	Rear Terminal Plate (for SB-301A)	1	
COMPONENT PACKING MATERIALS				
P1	SPG467	Outside Packing Case (for SB-301)	1	
P1-1	SPG467-1	Outside Packing Case (for SB-301A)	1	
P2	SPN4171-1	Inside Packing Case (for SB-301)	1	
P2-1	SPN4171-2	Inside Packing Case (for SB-301A)	1	
P3	SPN4197	Pad, Top & Bottom (for SB-301)	2	
P4	SPN4199	Pad, Front (for SB-301)	1	
P5	SPN4389	Bottom Pad (for SB-301A)	2	
ACCESSORIES				
A1	SQF761	Printed Matter (for SB-301)	1	
A1-1	SQF785	Printed Matter (for SB-301A)	1	
A2	SPB299-5	Felt, Speaker	1	
A3	SJP2207	Speaker Cord (DIN)	2	
MODEL SB-501				
SP1	EAS30PL42S	Speaker, Woofer 8Ω	1	Ⓝ
SP2	EAS15KM03SA	Speaker, Midrange 8Ω	1	Ⓝ
SP3	EAS10KH06SA	Speaker, Tweeter 8Ω	1	Ⓝ
SP4	SWT115-1	Network	1	Ⓝ
SP5	XSN4+30F	Screw, Tweeter	4	
SP6	XSN4+30F	Screw, Midrange	4	
SP7	XSN5+20FZS	Screw, Woofer	8	
CA1	SKA6671	Cabinet	1	Ⓝ
CA2	SYB341	Grill Ass'y	1	Ⓝ
CA3	SKZ347	Rear Board	1	
CA4	SBN419-1	Knob, Attenuator	2	
CA5	SHS3003	Absorber	3	
CA6	SHS3013	Absorber	3	
CA7	SYE279	Attenuator Plate, Midrange	1	
CA8	SYE281	Attenuator Plate, High Range	1	
CA9	SGB409	Specification Plate	1	Ⓝ
CA10	SWT109-5	Rear Terminal Ass'y	1	Ⓝ
COMPONENT PACKING MATERIALS				
P1	SPG471	Outside Packing Case	1	Ⓝ
P2	SPN4405	Inside Packing Case	1	Ⓝ
P3	SPN4407	Pad, Top & Bottom	2	Ⓝ
P4	SPN3863	Pad, Front	1	
ACCESSORIES				
A1	SQF763	Printed Matter	1	Ⓝ
A2	SPB299-5	Felt, Speaker	1	
A3	SJP2207	Speaker Cord (DIN)	2	

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ORDER NO. SD7503-392-1

Service Manual

Technics
HI-FI COMPONENTS
Technics

Supplementary-1

MODEL SB-40,101,201,301/301A,501

* The supplementary-1 manual includes only the changes of the SB-40, 101, 201, 301/301A, 501 service manual (ORDER NO.SD-392).
* Please use the correct part numbers listed below for future orders.

CHANGES

■ REPLACEMENT PARTS LIST

● Addition
○ Deletion

Ref.No.	Change of Part No.		Description	Per Set (Pcs.)	Remarks
	Part No.Listed	CORRECT PART NO.			
SP3	SWT111-1	○	Network (for SB-201)	0	SB-201
L1	●	SLCA681KU	0.68mH Choke Coil	1	SB-201
L2	●	SLCA331KU	0.33mH Choke Coil	1	SB-201
C2	●	ECTB25Y3R3	3.3μF,WV-25V Electrolytic	1	SB-201
R1	●	ERX2ANK6R8	6.8Ω, 2W, Metalic Film	1	SB-201
	●	SRE3	Attenuator	1	SB-201
SP3	SWT113-1	○	Network (for SB-301)	0	SB-301
SP3-1	SWT113-2	○	Network (for SB-301A)	0	SB-301A
C1	●	ECEB50Y10	10μF,WV-50V,Electrolytic	1	SB301/301A
C2	●	ECEB50Y33	33μF,WV-50V,Electrolytic	1	SB301/301A
C3	●	ECEB50Y6R8	6.8μF,WV-50V,Electrolytic	1	SB301/301A
L1	●	SLCA821KU	0.82mH, Choke Coil	1	SB301/301A
L2	●	SLCA561KU	0.56mH, Choke Coil	1	SB301/301A
R1	●	ERM6P8R2	8.2Ω, 6W, Wire	1	SB301/301A
R2	●	ERM4P6R8	6.8Ω, 4W, Wire	1	SB301/301A
R3	●	ERX2ANK3R3	3.3Ω, 2W, Metalic Film	1	SB301/301A
	●	SRE3	Attenuator	1	SB301/301A

Matsushita Electric
Matsushita Electric Trading Co., Ltd.
P. O. Box 288, Central Osaka, Japan

■ REPLACEMENT PARTS LIST

Ref. No.	Change of Part No.		Description	Per Set (Pcs.)	Remarks
	Part No.Listed	CORRECT Part No.			
SP4	SWT115-1	○	Network (for SB-501)	0	SB-501
C802	●	ECEB50Y22	22μF, WV-50V, Electrolytic	1	SB-501
C803	●	ECEB25Y6R8	6.8μF, WV-25V, Electrolytic	1	SB-501
C804	●	ECEB25Y2R2	2.2μF, WV-25V, Electrolytic	1	SB-501
L801	●	SLCA392KU	3.9mH, Choke Coil	1	SB-501
L802	●	SLCA222KU	2.2mH, Choke Coil	1	SB-501
L803	●	SLCA821KU	0.82mH, Choke Coil	1	SB-501
L804	●	SLCA271KU	0.27mH, Choke Coil	1	SB-501
R801, 802	●	ERX2ANK6R8	6.8Ω, 2W, Metalic Film	2	SB-501
R803	●	ERX2ANK3R3	3.3Ω, 2W, Metalic Film	1	SB-501
R804	●	ERM6P470	47Ω, 6W, Wire	1	SB-501
		SRE3	Attenuator	1	SB-501
CA2	SYB341	SYB343	Grill Ass'y	1	SB-501

■ ERRATA

Ref. No.	ERROR	CORRECTION	Remarks
CA7	CA7 in fig.8 deletes	Frequency Response Plate (Please draw CA7 in fig.7)	SB-201 (Page 1)
CA9	CA9 in fig.11 deletes	Frequency Response Plate (Please draw CA9 in fig.10)	SB-301 (Page 2)
CA9	CA9 in fig.14 deletes	Frequency Response Plate (Please draw CA9 in fig.13)	SB-501 (Page 2)

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